



The Allergy and Environmental Health Association

Box 871 Cambridge, Ont. N1R 5X9

INFORMATION RESOURCE LIST INDOOR AIR POLLUTION - CARPETS

CHEMICAL EXPOSURES FROM CARPETS

"Carpeting can be one of the major potential sources of organic emissions in the indoor environment because its manufacture generally involves many synthetic chemicals and chemical treatments including fiber bonding materials, backing glues, dye solvents, antistatic and antistain treatment, fire retardants, and pesticide and fungicide applications. In the interim between manufacture and use, carpeting is stored in plastic-covered rolls, which minimizes any off-gassing. Upon installation, the volatile and semi-volatile chemicals from the manufacturing process are efficiently released into the indoor environment because of the unrolled carpet's greatly increased exposed surface area." (Pleil and Whiton 1990)

LONG-TERM IMPLICATIONS OF CARPET USE

From a study of Swedish primary schools from 1982 until 1986 the following observations were made. "In an initial cross-sectional study, the wall-to-wall carpet group reported an enhanced prevalence of eye and airway symptoms, face rashes, headache, abnormal tiredness and a sensation of being electrostatically charged in comparison with personnel in schools with hard floor covering. Since the enhanced prevalence of symptoms in the wall-to-wall carpets versus the hard floor covering group was also observed among persons without signs of atopy [allergy] it was concluded that wall-to-wall carpets are not exclusively a problem for the sensitive atopic individual. The type of ventilation system (mechanical ventilation versus natural ventilation) had no significant effect on the symptom frequencies. After the removal of the wall-to-wall carpets, many of the reported symptoms decreased to a level similar to the group without previous or present exposure to such carpets. However, the frequency of airway symptoms remained enhanced among the wall-to-wall carpet group." (Norback and Togen, 1989 Abstract)

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- Norback, D. and M. Torgen, "A longitudinal study relating carpeting with sick building syndrome", Environment International, Vol. 15 (1989), pp. 129-135.
- Pleil, J.D. and R.S. Whiton, "Determination of organic emissions from new carpeting", Appl. Occup. Environ. Hygiene, Vol. 5, no. 10 (October 1990), pp. 693-699.

CARPET INFORMATION - GENERAL

Bower, John, "The floor plan for health", EastWest, July 1989,
pp. 55-56,102.

Levin, Hal, Occupational medicine: Problem buildings: building-
associated illness and the sick building syndrome.
State of the Art Reviews, Vol. 4, no. 4 (Oct-Dec 1989),
pp. 680-682.

Levin, Hal, editor, "Analyzing carpet chemicals", Indoor Air Quality
Update (October 1990), pp. 7-9.

-----, "Are there any 'safe' carpets?", Indoor Air Quality Update
(October 1988), pp. 14-16.

-----, "Carpet emissions and indoor air", Indoor Air Quality Update,
Vol. 2, no. 12 (December 1989), pp. 1-7.

Seifert, B., et al. "Volatile organic compounds from carpeting",
in: Man and his ecosystem: proceedings of the 8th World
Clean Air Congress 1989, Vol. 1. Elsevier, New York, 1989,
pp. 253-258.



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INFORMATION RESOURCE LIST

HOUSING AND ENVIRONMENTAL SENSITIVITY

SOURCE: CANADA MORTGAGE AND HOUSING CORPORATION
682 Montreal Rd., Ottawa, Ontario K1A 0P7

Housing for the Environmentally Hypersensitive,
O. Drerup, C. Matlock, D. Rousseau, V. Salares (1990).

Implications of Chemical Hypersensitivity for Housing Design,
Bruce Small and Jim H. White (1984).

Survey of the Medical Impact on Environmentally Hypersensitive
People of a Change in Habitat (1990).

BOOKS

Bower, John, The Healthy House, 1989, 392p. *

Good, Clinton with Debra Lynn Dadd, Healthful Houses, Guaranty Press,
1988.

Kelly, Wm. J., Home Safe Home: How to Make Your Home Environmentally
Safe, 1989, 160p.

Rousseau, David, and Wm. Rea M.D., Your Home, Your Health and
Wellbeing, Hartley and Marks, Vancouver, B.C., 1987, 300p.

Zamm, Alfred V. M.D. with Robert Gannon,
Why Your House May Endanger Your Health, Simon & Schuster, 1980,
218p.

* highly recommended



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PRODUCT SOURCE LIST

RESPIRATORS

3M DISPOSABLE RESPIRATORS

Note: Prices and minimum order quantities vary with supplier used.

- 9913 - lightweight, flexible, charcoal embedded fibre mask
rated for nuisance dusts and mists
cost: approx. \$4.-5. per mask incl. taxes (min. ord. 10 or 20)
- 9920 - polypropelene dust/mist filter with an exhale valve
cost: approx. \$7. per mask (min. ord. 10)
- 9925 - polypropelene dust/mist/fume welder's mask with exhale valve
cost: approx. \$6. per mask (min. ord. 5)

SUPPLIERS

SAFETY SUPPLY CANADA Order office: 1-800-387-5744
90 West Beaver Creek Rd. Richmond Hill, Ontario

Retail Outlets: 214 King St. (at Sherbourne), Toronto
947 Warden Ave., Scarborough, Ont.

May order as an individual with Visa or Mastercard.
Business accounts require a \$75. minimum order.
Standard shipping charge is \$5.00.

LATOPLAST INC. Order office: 1-800-268-5340
1661 Finfar Ct. (off Southdown Rd. near QEW), Mississauga, Ont.

May only order as a business or association since this is a
distributor and not a retailer.

REFILLABLE CHARCOAL MASKS

STEVE ROWAT, ~~1-800-268-5340, 1661 Finfar Ct. (off Southdown Rd. near QEW), Mississauga, Ont.~~

- each mask supplied with 2 refills
- cost: 1-2 masks \$30. each down to \$18. each for 10-20 masks
includes mailing
(net cost range: \$6. - \$10. per refill)



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INFORMATION RESOURCE LIST

CHEMICAL EXPOSURE - FORMALDEHYDE

SOURCE: ONTARIO MINISTRY OF LABOUR LIBRARY
400 University Ave., Toronto, Ont. M7A 1T7
10th floor (416) 326-7840

Bach B., O.F. Pedersen, L. Molhave,
"Human Performance During Experimental Formaldehyde Exposure".
Environment international. vol. 16, n.2 (1990), pp. 105-113.

Kilburn K.H., B.C. Seidman, R. Warshaw, "Neurobehavioral and
Respiratory Symptoms of Formaldehyde and Xylene Exposure in
Histology Technicians". Archives of Environmental Health.
vol. 40, no. 4 (July/August 1985), pp. 229-233.

Krzyzanowski M., J.J. Quackenboss, M.D. Lebowitz,
"Chronic Respiratory Effects of Indoor Formaldehyde Exposure".
Environmental Research. v.52, n.2 (Aug. 1990), pp. 117-125

Thrasher J.D., A. Broughton, R. Madison, "Immune Activation and
Autoantibodies in Humans with Long-term Inhalation Exposure to
Formaldehyde". Archives of Environmental Health. vol. 45, no. 4
(July/August 1990), pp. 217-223.



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INFORMATION RESOURCE LIST

INDOOR AIR - BIOLOGICAL CONTAMINATION

SOURCE: CANADA MORTGAGE AND HOUSING CORPORATION
682 Montreal Rd., Ottawa, Ont. K1A 0P7

Determination of Fungal Propagules in Indoor Air,
by Paracel Laboratories Ltd., Nepean, Ont. (1988)

Moisture and Air, Problems and Remedies

Moisture Problems NHA 6010 (\$1. + \$1. handling)

SOURCE: HEALTH AND WELFARE CANADA
Brooks Claxton Bldg., Ottawa, Ontario K1A 0K9
Attn. Communications Director

Significance of Fungi in Indoor Air: Report of a Working Group,
Prepared by the Working Group on Fungi and Indoor Air
Health and Welfare Canada,
Canadian Journal of Public Health. 78. 2 (1987).

The Significance of Moulds in Indoor Air, by David Miller, PhD.
in Proceedings of the Environmental Sensitivities Workshop,
Ottawa, Ontario, May 24, 1990.
Health and Welfare Canada (1991).



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INFORMATION RESOURCE LIST

INDOOR AIR CONCERNS - GENERAL

SOURCE: CANADA MORTGAGE AND HOUSING CORP. PUBLICATIONS
Canadian Housing Information Centre
682 Montreal Rd., Ottawa, Ontario K1A 0P7

Indoor Air Quality - Builders' Series (1988).
(See CMHC list of Research Reports and Papers on Indoor Air
Pollution for specific topics. \$1. each + \$1. handling/order)

Indoor Air Pollutants - Types, Sources and Controls,
P. Russell (1984).

Indoor Air Pollution and Housing Technology: Summary Reports
(1984).

Updating Health Standards for Residential Constuction,
Karl H. Raab (1982).

SOURCE: HEALTH AND WELFARE CANADA
Brooks Claxton Bldg., Ottawa, Ontario K1A 0K9
Attn. Communications Director

Exposure Guidelines for Residential Indoor Air Quality (1987).

SOURCE: ONTARIO MINISTRY OF LABOUR, Occupational Health and Safety
400 University Ave., Toronto, Ontario M5G 1S6

Findings of the Ontario Inter-Ministerial Committee on
Indoor Air Quality, G.S. Rajhans, P.Eng., (1990).

SOURCE: PERIODICALS

Sick Building Syndrome: Complaints Warrant Investigation,
Health News, (August 1989).

Health Effects and Sources of Indoor Air Pollution, Parts I and
II, J.M. Samet, M.C. Marbury, and J.D. Spengler.
American Review of Respiratory Diseases, (1988).

Indoor Air, Special Feature (4 articles), in At the Centre,
Canadian Centre for Occupational Health and Safety,
(August 1991), p. 18-25.